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First Creek  
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**FINAL ENVIRONMENTAL ASSESSMENT  
STATEMENT OF FINDINGS  
AND  
FINDINGS OF NO SIGNIFICANT IMPACT**

**Knoxville Utilities Board  
(File No. 200500736)**

**Application for Proposed Channel Relocation and Wetland Fill Associated with Construction of a  
Submerged Wastewater Tank at Unnamed Tributaries to First Creek, Opposite Tennessee River Mile 647.8,  
Right Bank, Knox County, Tennessee**

**U.S. ARMY CORPS OF ENGINEERS  
Nashville District, Regulatory Branch**

**Prepared By:**

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14 SEP 05

Date

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## **1.0 Proposed Activity**

**Background.** On February 24, 2005, the Knoxville Utilities Board (KUB) submitted an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act and approval from the Tennessee Valley Authority pursuant to Section 26a of the TVA Act of 1933. The proposed work involves the relocation of approximately 516 linear feet of streams and the filling of approximately 0.05 acres of wetlands, of which 0.04 acres are considered fringe wetlands to affected streams in association with the construction of a submerged wastewater tank at unnamed tributaries to First Creek, Opposite Tennessee River Mile 647.8, Right Bank, Knox County, Tennessee.

**Project Description.** The proposed work is associated with the construction of an underground wastewater storage tank measuring 160' x 260' x 32'-35' in depth, and associated driveways, parking areas and support buildings. This project is part of the Partners Acting for a Cleaner Environment (PACE) 10-year Program to improve our Waterways initiative, sanctioned by the U.S. Environmental Protection Agency (EPA). The goal of the pace10 program is to develop and implement a well-planned, cost-effective wastewater system improvement program that satisfies regulatory requirements, protects the environment, enhances community and stakeholder relations, and sustains economic development. The program includes improvements to existing sewer lines, additional treatment capacity, and storage tanks such as this one to keep the wastewater system from overflowing during heavy rainfall. The Upper First Creek Wastewater Storage Facility project is located near a chronic overflow location in the KUB sewer system. When flows in the system increase beyond the sewer's capacity, flow would be diverted into an influent pipeline, through a screening/grinding facility, and into a below-ground wastewater pumping station. The pumping station would fill the 9.8 million gallon below ground storage facility and, at the conclusion of the rainfall/overflow event, would be used to drain the tank at a controlled rate. After the tank has been emptied, an automatic washdown system would be activated to flush the residuals out of the tank and into the collection system. The facility would be provided with an odor control system and standby electric power.

The project site was initially evaluated for development by Midpark Development Inc., for three retail facilities, associated parking lots, driveways and detention ponds which would have required stream culverting, fill, and relocation as well as wetland fill. Public Notice 03-97 was issued on December 9, 2003 and the project was subsequently withdrawn on February 9, 2005.

**Mitigation.** The applicant proposes on-site mitigation for stream relocations and wetland fill as follows:

- Approximately 297 linear feet of stream located on the northwestern portion of the property would be relocated into an existing wet weather conveyance which would be reconstructed to form the proposed new stream channel (Channel D). The upper portion of Stream B would be rerouted into Channel D. Currently, channel D is vegetated and treed providing a suitable canopy for the proposed stream channel.

- An additional 331 linear feet of stream would be constructed beginning where Channel D meets the flood plain, and would traverse through the flood plain, converging with Stream C approximately 50 feet upstream of its confluence with First Creek.

- Approximately 0.04 acres of wetlands were identified just north of the headwaters of Stream B. Approximately 0.01 acres of this wetland area may be impacted due to the redirection of Stream B into the reconstructed stream bed, Channel D. In addition, approximately 0.04 acres of fringe wetlands would be impacted along Streams A, B, and C. Proposed mitigation for wetland impacts consists of the construction of a wetland area of approximately 0.06 acres within the meanders of the constructed stream length. Mitigation is proposed at 1:1 ratio for impacted fringe wetlands and 2:1 ratio for wetland impacts located above the headwaters of Stream B.

-Another wetland area was located on the southern edge of the project site. It lies adjacent to an unnamed tributary to First Creek. This wetland was delineated at 0.12 acres. The work will not disturb this wetland.

The constructed stream channel would contain substrate and riffle/pool system similar to existing conditions through the use of meanders, straight segments, and structures such as cross vanes and J-hook vanes. Tree seedlings would be planted along two rows at 10- to 15-foot centers and two rows of shrub seedlings would be planted at 30-foot centers on each side of the mitigated stream bank. Additionally, this buffer would be extended to 75-feet in width along the northeast side of the relocated stream. Excavation activities in the stream would be conducted in the dry season and banks would be stabilized with a 2H:1V ratio slope. Mitigated wetland areas within the meanders of the constructed stream would be constructed by extending the bankfull benches to a width necessary to provide the proposed acreage.

A monitoring program for the proposed stream and wetland mitigation areas will be established and implemented for a period of five years. A qualified environmental professional will provide oversight for the mitigation activities and will monitor the mitigation area. Monitoring data will be used to prepare annual reports.

Decision Required. Section 301 of the Clean Water Act prohibits the discharge of dredged or fill material into waters of the United States unless authorized by the Secretary of the Army acting through the Chief of Engineers. The unnamed tributaries to First Creek, Opposite Tennessee River Mile 647.8, Right Bank, is a water of the United States as defined by 33 CFR Part 328. A Section 404 permit is required for the work; therefore, the Corps of Engineers must decide on one of the following:

- a. issuance of a permit for the proposal
- b. issuance of a permit with modifications or conditions
- c. denial of the permit

Other Approvals Required. Other federal, state, and/or local approvals may be required for the proposed work. Specifically, the State of Tennessee Department of Environment and Conservation (TDEC), Division of Water Pollution Control must certify that the work will not violate state water quality standards in accordance with Section 401(a)(1) of the CWA. The State of Tennessee transferred water quality certification from that issued to Walter Wise, Midpark Development, to KUB on March 31, 2005. (Appendix B)

**2.0 Public Involvement Process.** On April 22, 2005, Public Notice 05-26 was issued to advertise the proposed work. All responses are included in Appendix C. A summary of the responses are as follows:

a. The US Fish and Wildlife Service responded to the public notice by letter dated May 20, 2005, stating that based on their records, it is their belief that there are no federally listed or proposed endangered or threatened plant or animal species in the impact area of the project, and that requirements of Section 7(c) of the Endangered Species Act of 1973, as amended, are fulfilled. No significant adverse effects to fish and wildlife, their habitats and human uses thereof are expected to result from the proposed work.

b. The Tennessee Historical Commission (THC) responded to the public notice by letter dated April 28, 2005, requesting a detailed archaeological survey report on the project location. A Phase I Survey was conducted in June 2005 by Paul M. Matchen, James J. Kocis, and Michael G. Angst and provided to the applicant. The applicant provided us with four copies to forward to the THC. The Phase I Survey was

forwarded to THC on July 13, 2005. The THC responded by letter dated July 21, 2005 stating that the Phase I Survey meets the Tennessee SHPO Standards and Guidelines for Archaeological Resource Management Studies. They reiterate the testing on the project site has shown that no historic properties will be affected by the proposed undertaking and they have no objection to the project proceeding. However, in the next paragraph the THC states that upon receipt of a complete Phase II Survey report they will complete their review and further stated "Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met". On July 7, 2005, the applicant sent the THC four copies of the Phase II Archaeological Investigation Management Summary requesting concurrence that the requirements of Section 106 of the National Historic Preservation Act had been satisfied. The THC responded by letter dated July 7, 2005 stating that based on the Phase II Management Summary, they find the project area contains no archaeological resources eligible for listing in the National Register of Historic Places. They further stated they had not received complete Phase I or Phase II reports on archaeological investigations and request these reports for their review and comment. Four copies of the Draft Phase II Archaeological Report were received by this office on September 7, 2005. An electronic copy of the report was submitted to the SHPO on August 30, 2005 by Craig Parker, with Gresham, Smith and Partners. This office submitted a memorandum to the SHPO dated September 7, 2005 requesting concurrence with the Corps finding that site 40KN280 does not meet the minimal criteria for eligibility to the NRHP. Jennifer Barnett stated in an email dated September 7, 2005 the SHPO has issued Section 106 clearance for this project to commence.

c. The Tennessee Wildlife Resources Agency (TWRA) responded to the public notice by letter dated May 20, 2005 requesting a 50 foot vegetated riparian buffer on each side of the relocated stream channel. The applicant responded by letter dated June 16, 2005 stating that TDEC accepted the proposed mitigation and that the mitigation standards in *Stream Mitigation Guidelines for the State of Tennessee* were not published until July 1, 2004 after the ARAP was issued by TDEC. Based on this information, the applicant requested the proposed mitigation be accepted as proposed. After discussions between the applicant and the Corps, the applicant responded to TWRA by a second letter dated July 12, 2005 proposing an increase in the riparian buffer along the northeast side of the relocated stream to an average width of approximately 75 feet. The applicant further stated in this letter that the City of Knoxville has expressed an interest in locating a greenway between the storage tank on the northeast side and the relocated stream. Widening the buffer zone along any other areas of the relocated stream would potentially cause encroachment upon the structure and interference with facility operations. TWRA responded by email dated July 15, 2005 accepting the increase of the riparian buffer to 75 feet along the northeast side of the mitigation stream.

### **3.0 Environmental and Public Interest Factors Considered**

Introduction. 33 CFR 320.4(a) states the decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. All factors that may be relevant to the proposal must be considered. Public Notice 05-26 listed factors that may be relevant to the proposal. The following sections show which factors are relevant in this proposal, and if relevant, provides a concise description of the impacts.

Physical/Chemical Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

( X ) Substrate. Placement of fill in the existing channel would permanently eliminate 516 linear feet of the existing substrate consisting of silt, sand, gravel and rock. The new channel would be 628 linear

feet and would mimic the old channel as closely as possible with the addition of mitigation features such as cross vanes and J-hook structures along its width. The new channel will also be planted with trees and shrubs which will eventually provide canopy which is currently lacking along some of the impacted streams.

( X ) Currents, circulation or drainage patterns. The drainage patterns would be altered somewhat by the proposed work. Stream flow would still terminate into First Creek as before.

( X ) Suspended particulates, turbidity. The proposed channels would be constructed in the dry and would be properly stabilized with vegetation prior to diversion of the stream flow. Plugs at the upper and lower ends of the channel would remain in place until the entire channel has been completed. During the initial flows through the channel, there would likely be a minor increase in turbidity and suspended particulates due to unconsolidated materials. After a short time, turbidity levels should return to pre-construction levels.

( X ) Water quality (temperature, color, odor, nutrients, etc). The existing channels are vegetated with riparian trees or shrubs. The new channel will be planted with trees and shrubs on 10- and 15-foot centers along the entire length of the channel on both banks providing a 30-foot buffer zone in most areas and a 75-foot buffer zone along the northeast side of the mitigated stream. As the trees mature and provide shade over the channel, water quality would be expected to remain as it already is, or possibly improve. Additionally, the proposed wastewater storage tank would help improve water quality by keeping wastewater from overflowing during heavy rain events.

( ) flood control functions. No expected impacts

( ) storm, wave and erosion buffers. No expected impacts

( ) Shore erosion and accretion patterns. No expected impacts

( ) baseflow. No expected impacts

Biological Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

( X ) special aquatic sites (wetlands, mudflats, pool and riffle areas, vegetated shallows, sanctuaries and refuges, as defined in 40 CFR 230.40-45). Approximately 0.19 acres of wetlands were identified on the project site. Of this total, only 0.04 acres of fringe wetlands will be impacted by the proposed work. Proposed mitigation would provide 0.06 acres of wetlands along the mitigation stream. The current wetlands are small in quantity and of questionable quality. The mitigated wetland areas will be somewhat larger in combined size. The chances of success are improved since the constructed wetlands will be located within a floodplain and immediately adjacent to a stream channel.

( X ) Habitat for fish and other aquatic organisms. The eventual shading of the proposed channel would improve conditions for benthic organisms.

( X ) wildlife habitat. The new channel would eventually have a treed riparian area which would provide habitat for small mammals and birds.

☒ Endangered or threatened species. The Service indicates that no federally-listed or proposed endangered or threatened species occur within the impact area of the project. Based on this information and our review we have determined the work would not affect listed species or designated critical habitat.

☐ biological availability of possible contaminants in dredged or fill material. No expected impact.

Human Use Characteristics and Anticipated Impacts. The relevant blocks are checked with a description of the impacts.

☐ existing and potential water supplies; water conservation. No expected impact.

☐ water related recreation. No expected impacts

☒ aesthetics. The proposed work would replace a treed and shrubbed natural area with concrete structures associated with the buried storage tank, access roads and a parking area. However, property adjacent to the project site is commercial and contains a fast-food restaurant and other commercial buildings and parking lots. Therefore, the change in the general visual characteristics of the area would be relatively minor.

☐ traffic/transportation patterns. No expected impacts

☐ energy consumption or generation. No expected impacts

☐ navigation. No expected impacts

☐ Safety. No expected impacts.

☐ air quality. No expected impacts. See Clean Air Act general conformity rule review in Section 5 of this document.

☒ noise. There may be a slight increase in noise when the structures are being built. This would be a temporary impact. Although the noise level is expected to increase slightly with an increase in activity, the impact would be minimal.

☒ Historic properties and cultural values. The THC indicated in an email dated September 7, 2005, that there are no National Register of Historic Places listed or eligible properties that would be affected by this undertaking. The THC will follow up this email with an official correspondence stating the same conclusion.

☐ land use classification. No expected impact

☐ conservation. No expected impact

☒ economics. Short-term economic benefits will be realized in the form of local labor and materials during the construction of the storage tank.

☐ food and fiber production. No expected impacts

( X ) general environmental concerns. This is a broad factor almost synonymous with the area's quality of life. All the relevant issues falling under this heading have been evaluated in this document. Special conditions have been added to minimize the unavoidable adverse environmental impacts identified.

( ) mineral needs. No expected impacts

( X ) Consideration of private property. CE regulations at 33 CFR 320.4(g) state that authorization of work by the DA does not convey any property rights, either in real estate or material, or any exclusive privileges. Furthermore, a DA permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. The underground storage tank should not have a negative impact on any adjacent property. A cemetery borders the back of the project area while the properties fronting the project area are all commercial in nature.

( X ) floodplain values. The City of Knoxville is in the process of studying floodplain impacts caused by the proposed work. The applicant met with the City on September 13, 2005 to review results of the analysis. The applicant states they were able to achieve a "no-impact" condition and will be providing the City with a final report shortly. Based on comments received by the City, the applicant expects to have a permit issued by the City in the coming weeks.

( ) other

Cumulative and Secondary Impacts. The Council on Environmental Quality regulations define cumulative impact as "the environmental impact which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The Corps considers every DA permit application on its own merits and assesses its environmental impacts within the proper scope of review for NEPA purposes. The scope of analysis for this DA permit application has been determined to encompass the entire project area. The impacts just described would result in minimal adverse cumulative impacts on areas within our NEPA scope of review. A discussion of these impacts has been presented in Section 3 above. Special permit conditions would be incorporated into the DA permit (if issued) to further minimize on-site impacts. When considering the impacts from past, present, and reasonably foreseeable future proposals, the cumulative and secondary impacts from this proposal are considered minor. There have been only four channel relocation permits issued in Knox County and the surrounding area since 2003. Of these four permits three were associated with business developments and one was associated with road construction. We cannot predict if a large number of DA permit applications in this area will be submitted. There are other wetlands/streams in the area, but we cannot predict when other properties will become available to this market area or if the proposals could avoid wetlands/streams present. Any permits issued in this general area in the past would have required adequate compensatory mitigation reducing those project impacts to an insignificant level. Considering past, present, and future proposals, there would be only minimal cumulative impacts associated with the stream and wetland fill at the proposed location.

#### **4.0 Alternatives.**

Introduction. This section discusses alternatives as required by 33 CFR 320.4(a)(2) and 40 CFR 230.10. The relevant environmental issues identified in Chapter 3.0 were used to formulate the alternatives. The alternatives that were given detailed consideration are listed in the following section.

Description of Alternatives.



a. No Action. This alternative would result if the permit to fill streams and wetlands is denied or the DA permit application is withdrawn.

b. The Applicant's Final Proposed Action. The proposed work consists of the relocation of approximately 516 linear feet of streams and the filling of approximately 0.05 acres of wetlands, of which 0.04 acres are considered fringe wetlands to affected streams.

c. The Applicant's Final Proposed Action with Special Conditions. This alternative would be composed of the applicant's proposal as described in the section above with the inclusion of additional recommended special conditions that would minimize unavoidable environmental impacts.

#### Comparison of Alternatives.

a. No Action. This alternative consists of denying the applicant's request to perform the proposed work. With this alternative, the impacts described in Section 3.0 above would not occur.

b. The Applicant's Final Proposal. The proposed action (described in Section 1.0) would result in minor adverse environmental impacts as well as substantial public health and water quality benefits.

c. The Applicant's Final Proposed Action with Special Conditions. The difference between this alternative and the Applicant's Proposal is the addition of special conditions. The applicant's proposed action described in Section 1.0 would result in relatively minor environmental impacts (see Section 3). To further minimize the impacts identified in Section 3 to the maximum extent practicable, reasonably enforceable special permit conditions have been developed and recommended (see below). The recommended conditions would afford appropriate and practicable environmental protection.

The following special permit conditions are recommended for inclusion in the permit:

The work must be in accordance with any plans attached to the permit. *Justification: To ensure that the work being performed is the work that was permitted.*

A copy of the permit must be available on-site and must ensure all contractors are aware of its conditions and abide by them. *Justification: This ensures that all of the contractors are aware that the work to be performed must conform to the approved plans and conditions.*

All stream work shall be performed in the dry to keep turbidity to a minimum. *Justification: Performing the work during low flow periods will minimize the amount of turbidity in the streams and will have less of an impact on the aquatic life in the streams.*

The applicant shall institute and maintain a strict erosion and sediment control program for the life of the project and all disturbed areas shall be properly stabilized as soon as practicable to prevent erosion. *Justification: Environmental Protection.*

The disturbance to riparian vegetation shall be kept to a minimum during construction. *Justification: To minimize the amount of disturbance in the work area and surrounding areas.*

All excavated and otherwise excess fill material associated with all construction activities shall be removed and deposited upland so as not to re-enter the waterway. *Justification: To maintain the chemical, physical and biological integrity of waters of the U.S. through the control of discharges of dredged or fill material.*

All new channels shall be excavated in the dry with the exception of tie-ins to the existing stream and the slopes of the new channels shall be properly stabilized before diversion of the existing stream through the new channels. *Justification: Minimize impacts on water quality.*

Knoxville Utilities Board shall be responsible for monitoring the mitigation site and guarantee the success of the site for five (5) consecutive years. Created wetlands will contain all wetland parameters in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (1987). Riparian buffers must be planted in accordance with the 401 certification for this project. Annual monitoring reports shall be submitted to this office. The report will provide in detail information regarding soils, hydrology, and vegetation within the mitigation sites. The reports should also contain information regarding any remedial action necessary to correct any deficiencies. *Justification: Environmental protection and mitigation of unavoidable impacts*

#### **5.0 404(b)(1) Determination.**

**General:** The purpose of Section 404(b)(1) of the Clean Water Act is to restore and maintain the chemical and physical, and biological integrity of the waters of the United States through the control of discharges of dredged or fill material. Controls are established through restrictions placed on the discharges in Guidelines published in 40 CFR 230.

**Restrictions on the Discharge:** Section 230.10 requires that the discharge meet certain restrictions in order to be authorized. The project is to be evaluated and comply with the following restrictions: (a) there would be no other practicable alternatives to the proposal that would have less adverse impacts on the aquatic environment, (b) that the discharge would not adversely impact water quality, violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act, (c) the discharge would not cause or contribute to the significant degradation of waters of the United States, and (d) the project would be designed in such a manner as to minimize to the extent possible the adverse impacts on the aquatic environment.

**Factual Determination:** Based on the probable impacts addressed above, compliance with the restrictions, and all other information concerning the fill materials to be used, the proposed work complies with the Guidelines and the intent of Section 404(b)(1) of the Clean Water Act.

#### **Evaluation of Compliance Checklist:**

A check in a block denoted by an asterisk indicates that the proposal does not comply with Section 404(b)(1) guidelines.

#### **Alternatives test.**

Are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into "waters of the United States" or at other locations within these waters? [Yes(\*) No x]

If the project is in a special aquatic site and is not water-dependent, has applicant clearly demonstrated that there are no practicable alternative sites available? [Yes x No(\*)]

Special restrictions. **Will the discharge:**

violate state water quality standards? [Yes(\*) No x]  
violate toxic effluent standards (under Section 307 of the Act)? [Yes(\*) No x]  
jeopardize endangered or threatened species or their critical habitat? [Yes(\*) No x]  
violate standards set by the Department of Commerce to protect marine sanctuaries? [Yes(\*) No x]

Evaluation of the physical/chemical and biological characteristics and anticipated changes indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s).

[Yes x No(\*)]

- (x) based on available information, the material is not a carrier of contaminants
- ( ) the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.
- ( ) acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

**Other restrictions.** Will the discharge contribute to significant degradation of "waters of the U. S." through adverse impacts to human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife, and special aquatic sites?

[Yes(\*) No x]

life stages of aquatic life and other wildlife?

[Yes(\*) No x]

diversity, productivity, and stability of the aquatic ecosystem, such as loss of fish or wildlife habitat, or loss of the capacity of wetland to assimilate nutrients, purify water, or reduce wave energy?

[Yes(\*) No x]

recreational, aesthetic and economic values?

[Yes(\*) No x]

**Actions to minimize potential adverse impacts (mitigation).** Will all appropriate and practicable steps (40 CFR 230.70-77) be taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?

[Yes x No(\*)]

The mitigation measures included in the proposed action together with the standard erosion and sedimentation controls included in the DA permit conditions would adequately minimize pollution or adverse effects to the affected ecosystem.

## 6.0 Findings

Clean Air Act General Conformity Rule Review. The proposed project has been analyzed for conformity applicability, pursuant to regulations implementing Section 176(c) of the Clean Air Act and it has been determined that the activities proposed under this permit will not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility, and cannot be practicably controlled by the Corps, and, for these reasons, a conformity determination is not required for a permit.

Environmental Justice. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to identify and address, as

appropriate, disproportionately high and adverse human health or environmental effects on its programs, policies, and activities on minority and low-income populations. Through our public involvement process, we have offered the general public, including low-income and minority populations in the involved community, an opportunity to participate in a decision-making process that could affect their well being. The proposed activity would only result in minor impacts. If any impact on minority or low-income populations does occur, it would not have disproportionately high and adverse human health or environmental effects.

Public Hearing Request. There were no requests for a public hearing.

Findings of No Significant Impact. Based on a full consideration of the EA and information obtained from cooperating federal/state agencies, I have concluded that issuance or denial of the requested permit would not constitute a major federal action that would significantly affect the quality of the human environment. This constitutes a Findings of No Significant Impact (FONSI); therefore, the preparation of an Environmental Impact Statement is not required. This FONSI was prepared in accordance with paragraph 7a of Appendix B, 33 CFR 325 dated 3 February 1988 (effective 4 March 1988).

Public Interest Determination. I have reviewed the application, responses to the Public Notice, and the EA. Adverse comments were received from the TWRA concerning the proposal but all concerns were addressed. The proposed work would result in only minor impacts to the environment. The proposed work would benefit the public by providing a safe method of handling sewage overflow during storm events. Having weighed these potential benefits that may be accrued against the reasonably foreseeable detrimental effects, I conclude that permit issuance would not be contrary to the public interest.

FOR THE COMMANDER:

9/14/05  
Date

for Joe H. Henry  
William L. James  
Chief, Eastern Regulatory Section  
Operations Division







**US Army Corps  
of Engineers.**

Nashville District

# Public Notice

Public Notice No. 05-26

Date: April 22, 2005

Application No. 200500738.

Please address all comments to:  
Nashville District Corps of Engineers, Regulatory Branch  
3701 Bell Road, Nashville, TN 37214

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**JOINT PUBLIC NOTICE**  
**US ARMY CORPS OF ENGINEERS**  
**TENNESSEE VALLEY AUTHORITY**  
**AND**  
**STATE OF TENNESSEE**

**SUBJECT:** Proposed Channel Relocation and Wetland Fill Associated with Submerged Wastewater Tank at Unnamed Tributaries to Flint Creek, Opposite Tennessee River Mile 647.8R, Knox County, Tennessee

**TO ALL CONCERNED:** The application described below has been submitted for a Department of the Army Permit pursuant to **Section 404 of the Clean Water Act (33 U.S.C. 1344)**. Before a permit can be issued, certification must be provided by the State of Tennessee, Division of Water Pollution Control, pursuant to Section 401(a)(1) of the CWA, that applicable water quality standards will not be violated. The State of Tennessee issued water quality certification by letter dated March 31, 2005.

**APPLICANT:** Knoxville Utilities Board  
4505 Middlebrook Pike  
Knoxville, TN 37921-5599

**LOCATION:** Unnamed Tributaries to Flint Creek, Opposite Tennessee River Mile 647.8R, Knox County, Tennessee

Latitude: 36° 1' 21.7"

Longitude: 83° 55' 40.3"

USGS Topographic Map: Fountain City, TN

**DESCRIPTION:** The proposed work consists of the relocation of approximately 516 linear feet of streams (labeled Stream A, B, and C on attachment) and the filling of approximately 0.05 acres of wetlands, of which 0.03 acres are considered fringe wetlands to affected streams. Stream A, the lower portion of Stream B, and the upper portion of Stream C would be drained from their respective headwaters to a reconstructed stream channel using a reinforced concrete pipe and a spring box. Flow from these streams would be routed into the proposed mitigation channel. The proposed work is associated with the construction of an underground wastewater

storage tank measuring 160' x 260' x 32'-35' in depth, and associated driveways, parking areas and support buildings. This project is part of the Partners Acting for a Cleaner Environment (PACE) 10-year Program to improve our Waterways initiative, sanctioned by the U.S. Environmental Protection Agency (EPA). The goal of the pace10 program is to develop and implement a well-planned, cost-effective wastewater system improvement program that satisfies regulatory requirements, protects the environment, enhances community and stakeholder relations, and sustains economic development. The program includes improvements to existing sewer lines, additional treatment capacity, and storage tanks to keep the wastewater system from overflowing during heavy rainfall.

The Upper First Creek Wastewater Storage Facility project is located near a chronic overflow location in the KUC sewer system. When flows in the system increase beyond the sewer's capacity, flow would be diverted into an influent pipeline, through a screening/grinding facility, and into a below-ground wastewater pumping station. The pumping station would fill the 9.8 million gallon below ground storage facility and, at the conclusion of the rainfall/overflow event, would be used to drain the tank at a controlled rate. After the tank has been emptied, an automatic washdown system would be activated to flush the residuals out of the tank and into the collection system. The facility would be provided with an odor control system and standby electric power.

The project site was initially evaluated for development by Midpark Development Inc., of three retail facilities, associated parking lots, driveways and detention ponds which would have required stream culverting, fill, and relocation as well as wetland fill. Public Notice 03-97 was issued on December 9, 2003 and the project was subsequently withdrawn on February 9, 2005.

The applicant proposes on-site mitigation for stream relocations and wetland fill as follows:

- Approximately 297 linear feet of stream located on the northwestern portion of the property would be relocated into an existing wet weather conveyance which would be reconstructed to form the proposed new stream channel (Channel D). The upper portion of Stream B would be rerouted into Channel D. Currently, channel D is vegetated and treed providing a suitable canopy for the proposed stream channel.

- An additional 331 linear feet of stream would be constructed beginning where the old channel meets the flood plain, and would traverse through the flood plain, converging with Stream C approximately 50 feet upstream of its confluence with First Creek.

- Approximately 0.04 acres of wetlands were identified just north of the headwaters of Stream B. Approximately 0.01 acres of this wetland area may be impacted due to the redirection of Stream B into the reconstructed stream bed, Channel D. In addition, approximately 0.03 acres of fringe wetlands would be impacted along Streams A, B, and C. Proposed mitigation for wetland impacts consists of the construction of a wetland area of approximately 0.05 acres within the meanders of the constructed stream length. Mitigation is proposed at 1:1 ratio for impacted fringe wetlands and 2:1 ratio for wetland impacts located above the headwaters of Stream B.

The constructed stream channel would contain substrate and riffle/pool system similar to existing conditions through the use of meanders, straight segments, and structures such as cross vanes and J-hook vanes. Excavation activities in the stream would be conducted in the dry season and banks would be stabilized with a 2H:1V ratio slope. Mitigated wetland areas within the meanders of the constructed stream would be constructed by extending the bankfull benches to a width necessary to provide the proposed acreage.

A monitoring program for the proposed stream and wetland mitigation areas would be established and implemented for a period of five years. A qualified environmental professional would provide oversight for the mitigation activities and would monitor the mitigation area. Monitoring data would be used to prepare annual reports.

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

An Environmental Assessment will be prepared by this office prior to a final decision concerning issuance or denial of the requested Department of the Army Permit.



Local historians and archeologists supplied the Corps and the Tennessee Historical Commission (THC) with information as to the possible location of Fort Adair within the proposed project area. Concerns were raised as to the possibility of adverse effects on an early historic site which was a part of the early settlement of Knox County and the State of Tennessee. The THC verbally requested a Phase I Survey be conducted on the project site. The applicant is in the process of obtaining a qualified archeological consultant to perform this survey. The Corps will insure compliance with Section 106 of the National Historic Preservation Act. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

Based on available information, the proposed work will not destroy or endanger any Federally-listed threatened or endangered species or their critical habitats, as identified under the Endangered Species Act. Therefore, we have reached a no effect determination and initiation of formal consultation procedures with the U.S. Fish and Wildlife Service is not planned at this time.

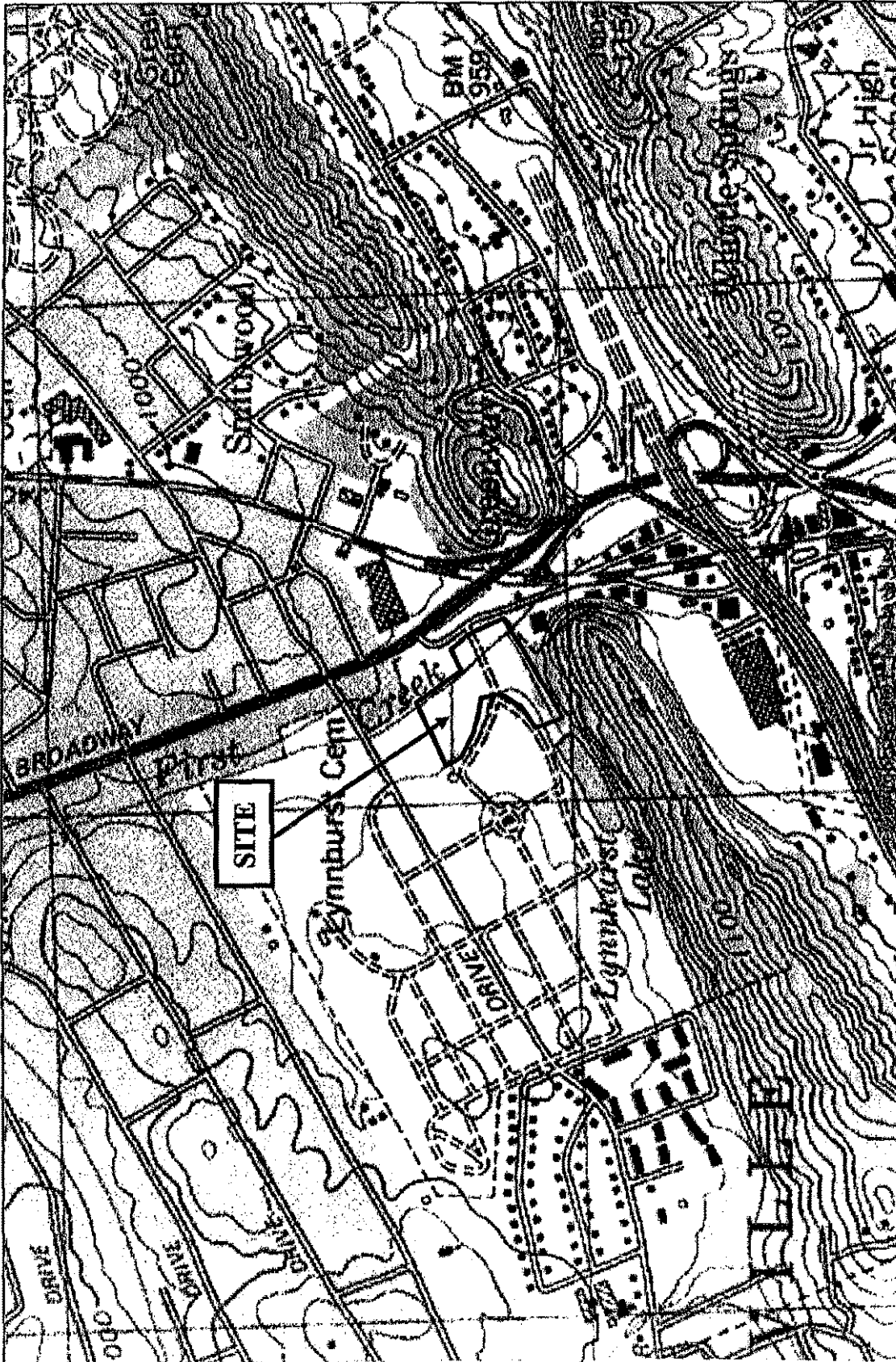
Other federal, state, and/or local approvals required for the proposed work are as follows:

a. Tennessee Valley Authority (TVA) approval under Section 26a of the TVA Act. In addition to other provisions of its approval, TVA would require the applicant to employ best management practices to control erosion and sedimentation, as necessary, to prevent adverse aquatic impacts.

b. Water quality certification from the State of Tennessee, in accordance with Section 401(a)(1) of the Clean Water Act. Water quality certification was transferred and modified from Midpark Development Inc., Mr. Walter Wise, to the Knoxville Utilities Board by letter dated March 31, 2005.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

Written statements received in this office on or before May 22, 2005, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Maryellen Farmer, at the above address, telephone (615) 369-7517. It is not necessary to comment separately to TVA since copies of all comments will be sent to that agency and will become part of its record on the proposal. However, if comments are sent to TVA, they should be mailed to Mr. Ben Peters, Little Tennessee Watershed Team, 804 Highway 321, N., Lenoir City, Tennessee 37771-6440.



USGS 7.5 Minute Series Topographic Map - Fountain City, Tennessee Quadrangle

Scale: 1" = 1000'

Checked By: EMS

Drawn By: AEH

Date: 2-15-05



SITE VICINITY MAP  
KUB Wastewater Storage Tank  
Upper First Creek Site  
Knoxville, Tennessee

Project No: 1434-04-652A

Figure

1

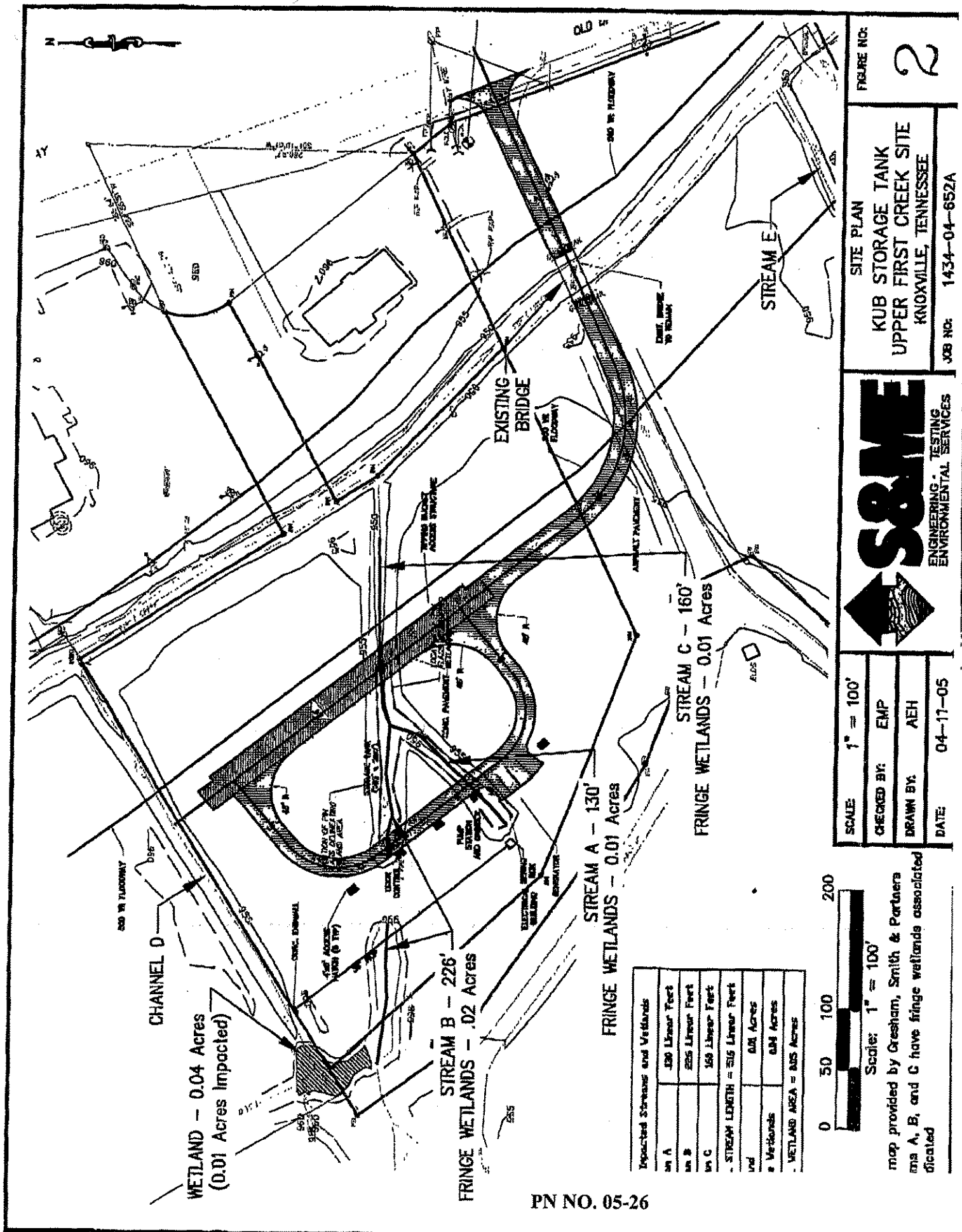


FIGURE NO:

2

**SITE PLAN**  
**KUB STORAGE TANK**  
**UPPER FIRST CREEK SITE**  
**KNOXVILLE, TENNESSEE**

JOB NO: 1434-04-652A



**SCALE: 1" = 100'**

**CHECKED BY: EMP**

**DRAWN BY: AEH**

**DATE: 04-17-05**

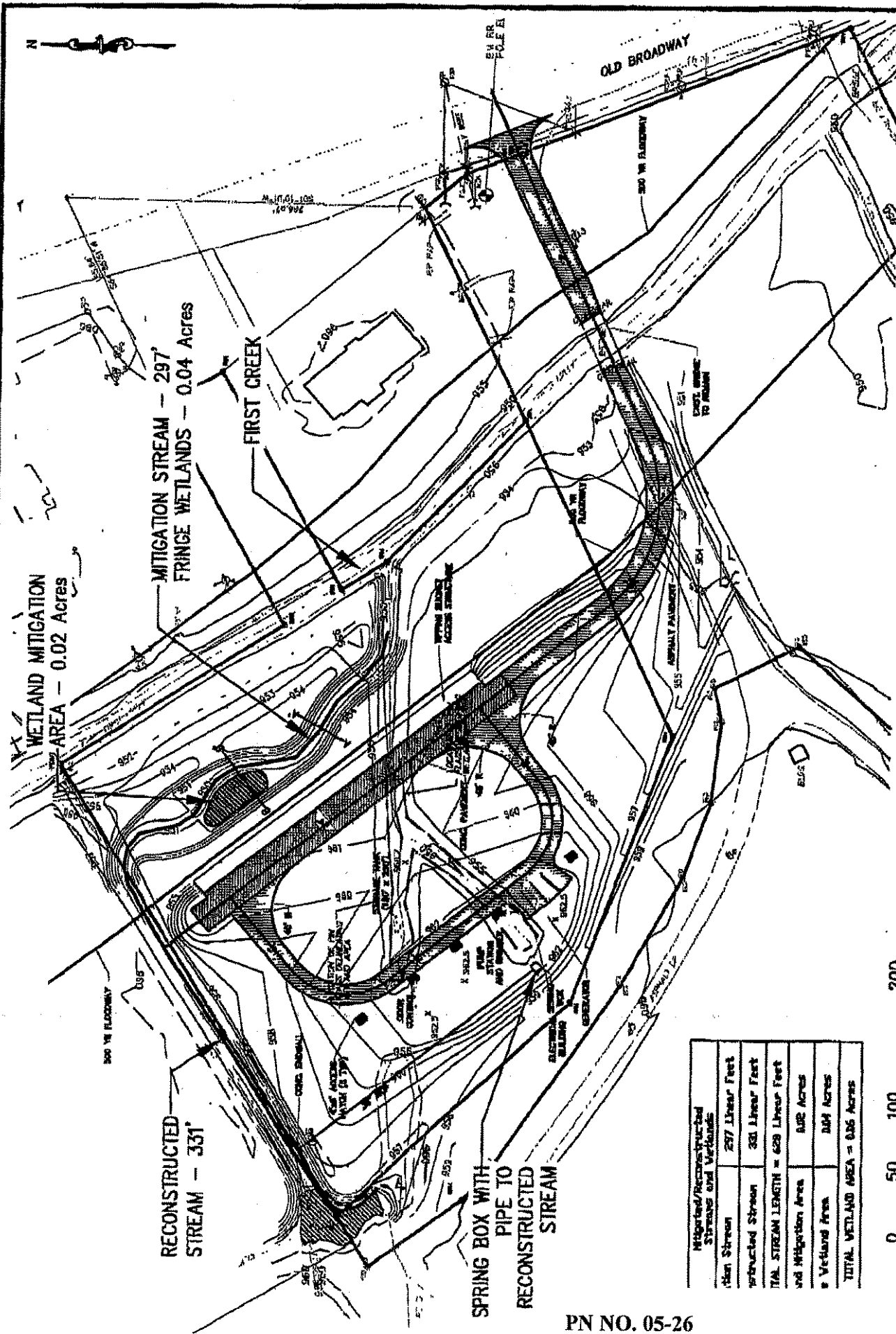


Scale: 1" = 100'

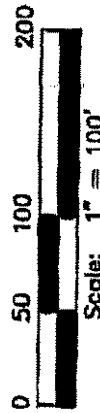
map provided by Gresham, Smith & Partners  
ma A, B, and C have fringe wetlands associated  
icated

PN NO. 05-26

FILE NO. 200500736



Mitigated/Reconstructed Stream and Wetlands	
Reconstructed Stream	297 Linear Feet
Wetland Area	331 Linear Feet
TOTAL STREAM LENGTH	628 Linear Feet
Wetland Area	0.02 Acres
Wetland Area	0.04 Acres
TOTAL WETLAND AREA	0.06 Acres



SCALE:	1" = 100'
CHECKED BY:	EMP
DRAWN BY:	AEH
DATE:	04-11-05



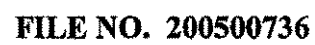
MITIGATION PLAN	
KUB STORAGE TANK	
UPPER FIRST CREEK SITE	
KNOXVILLE, TENNESSEE	
JOB NO:	1434-04-652A

FIGURE NO: 3

PN NO. 05-26

FILE NO. 200500736

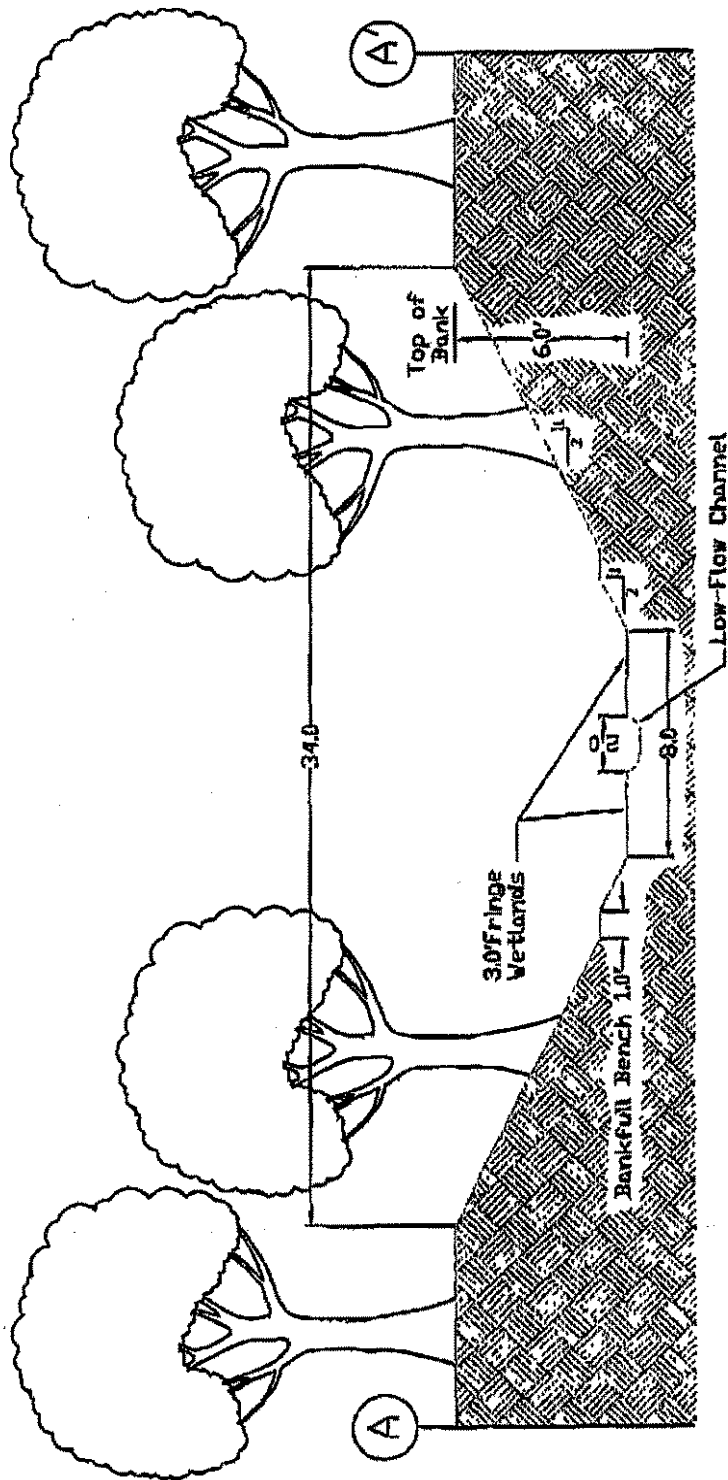
Map provided by Gresham, Smith & Partners











SCALE:	NTS
CHECKED BY:	EMP
DRAWN BY:	AEH



A-A' Stream Cross Section  
KUB STORAGE TANK  
UPPER FIRST CREEK SITE  
Knoxville, Tennessee

FIGURE NO:

4



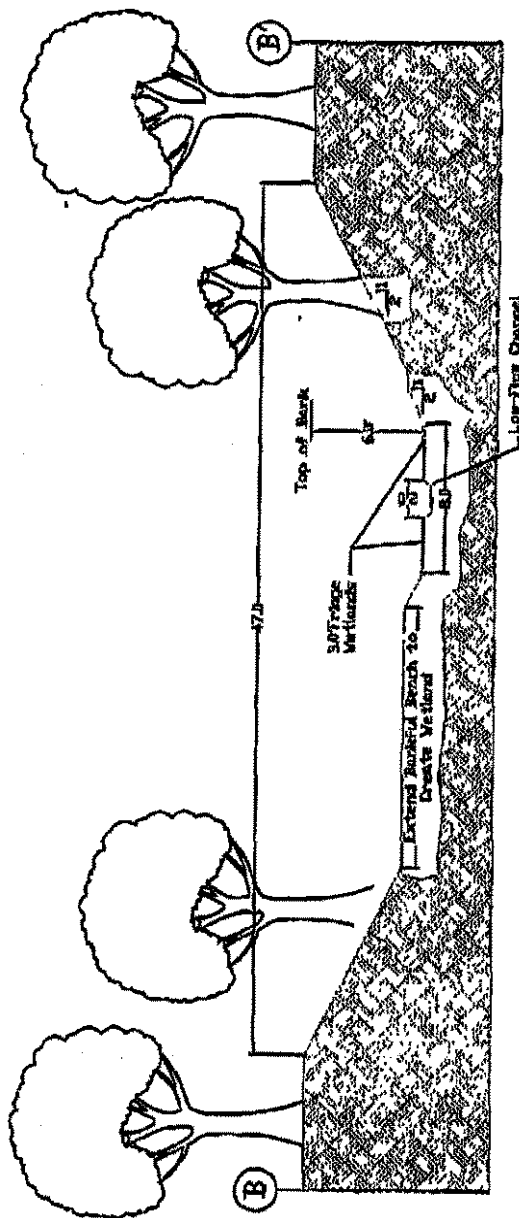


FIGURE NO: 5

B-B' Stream Cross Section  
KUB STORAGE TANK  
UPPER FIRST CREEK SITE  
Knoxville, Tennessee

JOB NO: 1434-04-652A



SCALE:	NTS
CHECKED BY:	EMP
DRAWN BY:	AEH
DATE:	04-11-05

from N-section

PN NO. 05-26

FILE NO. 200500736

## APPENDIX B



**TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION**

Division of Water Pollution Control  
401 Church Street  
7th Floor, L & C Building  
Nashville, TN 37243-1534

March 31, 2005

Mr. Thomas Dittmaier, P.E.  
Vice-President Engineering  
Knoxville Utilities Board  
P.O. Box 59017  
Knoxville, TN 37950-9017

**04 APR 2005**

**RE: Request for Transfer and Modification  
\$401 Water Quality Certification No. 03-403  
Walter Wise - Midpark Development @ First Creek; Knox County.**

Ms. Hemrick:

The Division is in receipt of your letter of February 25, 2005 in regards to the above referenced project.

By copy of this letter, the Division hereby acknowledges the transfer of \$401 Water Quality Certification No. 03-403 from Mr. Walter Wise to the Knoxville Utilities Board.

In addition, the division hereby modifies \$401 Water Quality Certification No. 03-403 Project Description and Condition #8 to reflect the proposed changes in the development and reduction in impacts as follows:

1. The placement of fill in approximately 130 linear feet of Stream A.
2. The placement of fill in 226 linear feet of Stream B.
3. The placement of fill in 160 linear feet of Stream C.

The total net impact to streams measures approximately 516 linear feet. This represents a reduction of 332 linear feet from the previously authorized alteration to 848 linear feet.

Compensatory stream mitigation shall consist of the relocation of 297 linear feet of the northwestern stream into the old channel along the northern property line and the construction of 331 linear feet through the floodplain. Total stream compensation shall be 628 linear feet.

DITTMAIER  
PAGE 2.

Wetland impacts and compensatory mitigation shall remain the same. All other conditions of the certification shall remain in effect and be adhered to.

If you have any questions regarding this correspondence please contact Mike Lee at (615) 532-0712 or [Mike.Lee@state.tn.us](mailto:Mike.Lee@state.tn.us).

Respectfully,



Daniel C. Eagar, Manager  
Natural Resources Section

Cc: Baxter Wilson – WPC/ Knoxville Field Office  
~~Mayellon Farmer – COE/ Nashville District~~  
Angela E. Hemrick  
S&ME, inc.  
1413 Topside Road  
Louisville, TN 37777



ATTENDING



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

April 28, 2005

Ms. Maryellen Farmer  
U.S. Army Corps of Engineers, Nashville District  
Regulatory Branch  
3701 Bell Road  
Nashville, Tennessee 37214

RE: COE-N, PN# 05-26/WASTEWATER TANK/FLINT CR, KNOXVILLE,  
KNOX COUNTY

Dear Ms. Farmer:

04 MAR 2005

The above-referenced undertaking has been reviewed with regard to National Historic Preservation Act compliance by the participating federal agency or its designated representative. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

In order to complete our review of this undertaking, this office will need to receive from you a detailed archaeological survey report on the area of potential effect. A list of individuals and organizations which have indicated a desire to work in Tennessee is available at <http://www.state.tn.us/environment/hist/pdf/archaeol.pdf>. This list is solely for the convenience of persons or firms seeking archaeological services. It does not indicate nor imply any sanction, certification, or approval by the State of Tennessee.

Upon receipt of the survey report, we will complete our review of this undertaking as expeditiously as possible. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is canceled or not funded by the federal agency. Questions and comments may be directed to Jennifer Barnett (615) 741-1588, ext. 17.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper  
Executive Director and  
Deputy State Historic  
Preservation Officer

HLH/jmb



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

July 7, 2005

Ms. Maryellen Farmer  
U.S. Army Corps of Engineers, Nashville District  
Regulatory Branch  
3701 Bell Road  
Nashville, Tennessee 37214

RE: COE-N, ARCHAEOLOGICAL ASSESSMENT, PN# 05-26/WASTEWATER TANK/  
FLINT CR, KNOXVILLE, KNOX COUNTY, TN

Dear Ms. Farmer:

At your request, our office has reviewed the above-referenced archaeological management summary in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). Based on the information provided, we find that the project area contains no archaeological resources eligible for listing in the National Register of Historic Places.

Our office has not yet received complete Phase I or Phase II reports on archaeological investigations for this undertaking. We have only been provided with management summaries for our review. Upon their completion, please submit these reports for our review and comment.

If project plans are changed or archaeological remains are discovered during construction, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper  
Executive Director and  
Deputy State Historic  
Preservation Officer

11 JUL 2005

HLH/jmb

cc: Craig Parker, CH2MHILL



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

July 21, 2005

Ms. Maryellen Farmer  
U.S. Army Corps of Engineers, Nashville District  
Regulatory Branch  
3701 Bell Road  
Nashville, Tennessee 37214

66 JUN 2005

RE: COE-N, ARCHAEOLOGICAL ASSESSMENT, PN# 05-26/WASTEWATER TANK/  
FIRST CR, KNOXVILLE, KNOX COUNTY,

Dear Ms. Farmer:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). We find that the report meets the Tennessee SHPO Standards and Guidelines For Archaeological Resource Management Studies.

In accordance with our previous correspondence dated July 7, 2005, we have also reviewed an initial Management Summary for Phase II testing at archaeological site 40KN280. The testing has shown that no historic properties will be affected by the proposed undertaking. We have no objection to the project proceeding. However, upon its completion, please submit a minimum of two copies of the complete Phase II testing report for our review and comment.

Upon receipt of the complete Phase II testing report, we will complete our review of this undertaking as expeditiously as possible. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is not funded or is canceled by the federal agency. Questions and comments may be directed to Jennifer M. Barnett (615) 741-1588, ext. 17.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper  
Executive Director and  
Deputy State Historic  
Preservation Officer

HLH/jmb





DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
3701 Bell Road  
NASHVILLE, TENNESSEE 37214

REPLY TO  
ATTENTION OF:

September 7, 2005

Regulatory Branch

SUBJECT: Proposed Channel Relocation and Wetland Fill Associated with Submerged Wastewater Tank at Unnamed Tributaries to First Creek, Opposite Tennessee River Mile 647.8R, Knox County, Tennessee

Mr. Herbert Harper, Director  
Tennessee Historical Commission  
Deputy State Historic Preservation Officer  
2941 Lebanon Road  
Nashville, TN 37243-0442

Dear Mr. Harper:

The U.S. Army Corps of Engineers, Nashville District (Corps), is in receipt of a report by Archaeological Research Laboratory (ARL) submitted on behalf of Gresham, Smith and Partners detailing phase II cultural resource testing results. An electronic copy of the report was submitted to your office on August 30<sup>th</sup>, 2005 by Craig Parker, Project Manager from Gresham, Smith and Partners. The proposed undertaking is a channel relocation and wetland fill associated with a submerged wastewater tank on unnamed tributaries of First Creek, opposite Tennessee River Mile 647.8R, Knox County, Tennessee.

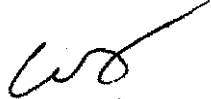
After consultation with your office and at the request of the Corps, phase II testing was conducted at the project area to determine eligibility status of 40KN280. This site was identified during the phase I survey as a moderately dense lithic scatter. Between June 15<sup>th</sup> and 30<sup>th</sup> of this year a backhoe was used to remove fill overburden from six locations to depths up to four meters. Five 1 x 1 meter excavation units and a single 50 x 50 centimeter test unit were placed within the trenches. In all cases, sediments observed were determined to be disturbed and lacking *in situ* cultural deposits. Artifact recovery from the phase II investigations was low.

Due to information gathered during the phase II testing, ARL has concluded that 40KN280 "does not meet the minimal criteria for eligibility to the NRHP." It is the finding of the Corps that 40KN280 is not eligible for listing on the National Register of Historic Places and that no historic properties are present within the Area of Potential Effect. Your concurrence with the Corps' finding is requested.

-2-

If you have any questions or need additional information, please contact Maryellen Farmer, Project Manager (615/369-7517) or Kyle Wright, Archaeologist (615/736-2553).

Sincerely,

A handwritten signature in dark ink, appearing to be 'WJ' or 'W James', written over a horizontal line.

William James  
Chief Eastern Section  
Nashville District Regulatory Branch  
U.S. Army Corps of Engineers

**Farmer, Maryellen J LRN**

---

**From:** Craig.Parker@CH2M.com  
**Sent:** Thursday, September 08, 2005 9:28 AM  
**To:** Wright, Kyle D LRN; James, William L LRN; Farmer, Maryellen J LRN  
**Subject:** FW: Upper First Creek Phase II Archaeological Report(120602DE/380.0)

According to Jennifer, we have done all we need to do, and it is your call as to when our Section 106 obligation has been met.

I trust that the permit may now be issued.

Thanks.

Craig

-----Original Message-----

**From:** Jennifer Barnett [mailto:Jennifer.Barnett@state.tn.us]  
**Sent:** Wednesday, September 07, 2005 2:59 PM  
**To:** Parker, Craig/KNX  
**Subject:** RE: Upper First Creek Phase II Archaeological Report(120602DE/380.0)

Craig,

I will respond with my report review comments to the Corps when I receive Kyle's letter, however, from the SHPO position, we have no objection to the issuance of the permit and the beginning of construction. My previous letter to Maryellen Farmer at the Corps, dated July 21st, states that we have no objection to the project proceeding. In accordance with our previous conversations, I made an exception to the normal process and made my recommendations based on the summary report. Nothing has changed from the SHPO's finding, and my previous clearance letter still stands. The Corps requested the full report prior to issuance of the permit, so it is their review and approval that you are now waiting for. They are the Federal Agency for the undertaking so their determinations are the ones that ultimately guide the process.

Let me know if you have any more questions.  
- Jennifer

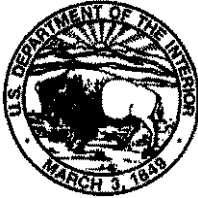
>>> <Craig.Parker@CH2M.com> 09/07/05 1:03 PM >>>  
Jennifer:

I spoke to William James at the COE today. He said that Kyle Wright would be sending you a letter requesting approval of the archaeological report, which they also received via FedEx this morning.

I hope you've had a chance to review the report and can provide the approval letter today or tomorrow if possible. If you have any questions, please give me a call. I'm out of the office today, but you can reach me at 865/207-3957.

-----Original Message-----

**From:** Jennifer Barnett [mailto:Jennifer.Barnett@state.tn.us]  
**Sent:** Thu 9/1/2005 6:49 AM  
**To:** Parker, Craig/KNX  
**Cc:**  
**Subject:** Re: Upper First Creek Phase II Archaeological Report(120602DE/380.0)



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

446 Neal Street  
Cookeville, TN 38501

# 2005-00736

→ MF

5/26

May 20, 2005

Lt. Colonel Byron G. Jorns  
District Engineer  
U.S. Army Corps of Engineers  
3701 Bell Road  
Nashville, Tennessee 37214

Attention: Ms. Maryellen Farmer, Regulatory Branch

Subject: Public Notice No. 05-26. Knoxville Utility Board, Proposed Wetland Fill and Stream Fill/Relocation, Knox County, Tennessee.

Dear Colonel Jorns:

Fish and Wildlife Service (Service) personnel have reviewed the subject public notice. The purpose of the project would be the construction of a 9.8-million-gallon underground wastewater storage tank, associated driveways, parking areas, and support structures in Knox County, Tennessee. The underground tank would be located near a chronic overflow location in the existing sewer system. During periods of flow beyond the sewer's capacity, flow would be diverted into the proposed storage tank and drained at a controlled rate. The proposed project would result in the permanent loss of 0.04 acre of wetland and the fill of 516 linear feet of unnamed tributaries to First Creek. The 0.04 acre of wetland loss would be mitigated by creating approximately 0.05 acre of wetlands on site. The applicant proposes to mitigate the 516 linear feet of stream loss by constructing 628 linear feet of new channel on site. The following constitute the comments of the U.S. Department of the Interior, provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Endangered species collection records available to the Service do not indicate that federally listed or proposed endangered or threatened species occur within the impact area of the project. We note, however, that collection records available to the Service may not be all-inclusive. Our data base is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitat and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality. However, based on the best information available at this time, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled.

23 MAY 2005

Obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of the action that may affect listed species or critical habitat in a manner not previously considered, (2) the action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the action.

We do not anticipate significant adverse impacts to fish and wildlife or their habitats as a result of this project. Therefore, the Service has no objection to the issuance of a permit for the work described in the subject public notice.

Thank you for this opportunity to review the subject notice. Please contact Robbie Sykes of my staff at 931/528-6481 (ext. 209) if you have questions about these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Lee A. Barclay". The signature is fluid and cursive, with the first name "Lee" and last name "Barclay" clearly distinguishable.

Lee A. Barclay, Ph.D.  
Field Supervisor

xc: Robert Todd, TWRA, Nashville, TN  
Dan Eagar, TDEC, Nashville, TN  
Darryl Williams, EPA, Atlanta, GA



#2405-00736  
→ MF  
5/26

## TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER  
P. O. BOX 40747  
NASHVILLE, TENNESSEE 37204

May 20, 2005

Maryellen Farmer  
Nashville District Corps of Engineers  
Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Re: Public Notice #05-26  
Applicant: Knoxville Utilities Board  
Proposed Relocation of 516 Feet of Streams and Fill of 0.05 Acres of Wetlands  
Unnamed Tributaries to First Creek, Opposite Tennessee River Mile 647.8R  
Knox County, Tennessee

Dear Ms. Farmer:

The applicant proposes relocate approximately 516 linear feet of unnamed tributaries to First Creek and fill approximately 0.05 acres of wetlands in Knox County for the purpose of constructing an underground wastewater storage tank, associated driveways, parking areas, and support buildings.

The Tennessee Wildlife Resources Agency is concerned that the proposed mitigation for the streams relocation is inadequate. The applicant proposes to plant 2 rows of trees in the riparian zone of the relocated stream. The relocated stream should have a buffer beginning at bank full elevation and extending 50 feet on each side of the channel with trees planted at a rate sufficient to establish an effective riparian buffer in order to satisfy replacement mitigation standards as stated in the "Stream Mitigation Guidelines for the State of Tennessee" by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Natural Resources Section. We request that a 50 foot vegetated riparian buffer on each side of the stream be incorporated into the permit conditions.

The Tennessee Wildlife Resources Agency requests that this permit be held in abeyance until the applicant agrees to these conditions.

Thank you for the opportunity to comment.

Sincerely,

Robert M. Todd  
Fish and Wildlife Environmentalist

4 MAY 2005

**The State of Tennessee**

AN EQUAL OPPORTUNITY EMPLOYER

cc: Rob Lindbom

Bob Nichols

USEWS, EPA, WPC

→MF  
6/20



June 16, 2005

U.S. Army Corps of Engineers  
Nashville District  
3701 Bell Road  
Nashville, Tennessee 37214

Attention: Ms. Maryellen Farmer

SUBJECT: **Response to TWRA Comments**  
**Public Notice #05-26**  
**KUB Upper First Creek Storage Tank**  
Knoxville, Tennessee  
S&ME Project No. 1434-04-652A

Dear Ms. Farmer:

This letter is written in response to the letter from the Tennessee Wildlife Resources Agency (TWRA), dated May 20, 2005, requesting that the relocated stream be constructed with a 50-foot vegetated riparian buffer on each side of the stream.

The Tennessee Department of Environment and Conservation (TDEC) issued an Aquatic Resource Alteration Permit (ARAP) for the subject site on May 6, 2004. The permit was issued to the previous property owner for similar impacts to the streams and wetlands. On March 31, 2005, TDEC issued a transfer and modification to the original permit, agreeing to the proposed mitigation plantings of two rows of seedlings on each side of the stream. Additionally, the mitigation standards noted in the TWRA letter as stated in the *Stream Mitigation Guidelines for the State of Tennessee* were not published until July 1, 2004, after the ARAP had been issued by TDEC. As such, these guidelines were not available when the original mitigation plan was approved by TDEC.

Based on the acceptance of the proposed mitigation by TDEC, and as this mitigation is part of an improvement project for a public utility with little room on the site for additional

S&ME, Inc., Knoxville Branch  
1413 Topside Road  
Louisville, Tennessee 37777

(865) 970-0003  
(865) 970-2312 fax  
[www.smeinc.com](http://www.smeinc.com)

20 JUN 2005



riparian width, we request that the proposed mitigation be accepted as proposed. The proposed mitigation includes planting of two rows of tree seedlings at 10- to 15-feet on center and two rows of shrub seedlings at 30-feet on center on each side of the stream bank.

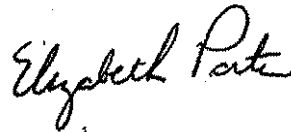
We would be willing to meet with representatives of TWRA on-site at their convenience to observe the proposed areas of impact and mitigation. If you have any questions concerning this letter, please do not hesitate to call.

Sincerely,

S&ME, Inc.



Angela E. Hemrick, P.E., P.G.  
Project Manager



Elizabeth M. Porter, P.G.  
Senior Reviewer

Attachments: TWRA May 20, 2005 letter

cc: Mr. Craig Parker (Gresham, Smith & Partners)



11-2005-00124  
→ MF  
5/26

## TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER  
P. O. BOX 40747  
NASHVILLE, TENNESSEE 37204

May 20, 2005

Maryellen Farmer  
Nashville District Corps of Engineers  
Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Re: Public Notice #05-26  
Applicant: Knoxville Utilities Board  
Proposed Relocation of 516 Feet of Streams and Fill of 0.05 Acres of Wetlands  
Unnamed Tributaries to First Creek, Opposite Tennessee River Mile 647.8R  
Knox County, Tennessee

Dear Ms. Farmer:

The applicant proposes relocate approximately 516 linear feet of unnamed tributaries to First Creek and fill approximately 0.05 acres of wetlands in Knox County for the purpose of constructing an underground wastewater storage tank, associated driveways, parking areas, and support buildings.

The Tennessee Wildlife Resources Agency is concerned that the proposed mitigation for the streams relocation is inadequate. The applicant proposes to plant 2 rows of trees in the riparian zone of the relocated stream. The relocated stream should have a buffer beginning at bank full elevation and extending 50 feet on each side of the channel with trees planted at a rate sufficient to establish an effective riparian buffer in order to satisfy replacement mitigation standards as stated in the "Stream Mitigation Guidelines for the State of Tennessee" by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Natural Resources Section. We request that a 50 foot vegetated riparian buffer on each side of the stream be incorporated into the permit conditions.

The Tennessee Wildlife Resources Agency requests that this permit be held in abeyance until the applicant agrees to these conditions.

Thank you for the opportunity to comment.

Sincerely,

Robert M. Todd  
Fish and Wildlife Environmentalist

24 MAY 2005

**The State of Tennessee**

AN EQUAL OPPORTUNITY EMPLOYER



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July 12, 2005

U.S. Army Corps of Engineers  
Nashville District  
3701 Bell Road  
Nashville, Tennessee 37214

Attention: Ms. Maryellen Farmer

SUBJECT: **Response to TWRA Comments**  
**Public Notice #05-26**  
**KUB Upper First Creek Storage Tank**  
Knoxville, Tennessee  
S&ME Project No. 1434-04-652A

214 JUL 2005

Dear Ms. Farmer:

This letter is written in response to your e-mail correspondence, dated June 22, 2005, requesting that the vegetated riparian buffer for the proposed stream relocation be widened to 50 feet where possible.

The proposed mitigation includes planting of two rows of tree seedlings at 10- to 15-feet on center and two rows of shrub seedlings at 30-feet on center on each side of the stream bank. The planting of additional trees alongside the proposed storage tank is not recommended, as the vegetation could encroach upon the structure and interfere with facility operations. Additionally, the City of Knoxville has expressed an interest in locating a greenway path between the storage tank (on the northeast side) and the mitigation stream. KUB is accommodating a potential location for the greenway, but this leaves no room for an additional buffer.

In response to your request, we propose to increase the riparian buffer along the northeast side of the mitigation stream, as indicated on the revised mitigation plan attached. This additional buffer has an average width of approximately 75 feet.

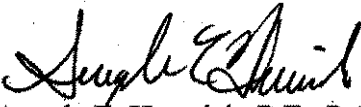
S&ME, Inc., Knoxville Branch  
1413 Topside Road  
Louisville, Tennessee 37777

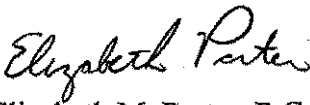
(865) 970-0003  
(865) 970-2312 fax  
[www.smeinc.com](http://www.smeinc.com)

If you have any questions concerning this letter, please do not hesitate to call.

Sincerely,

S&ME, Inc.

  
Angela E. Hemrick, P.E., P.G.  
Project Manager

  
Elizabeth M. Porter, P.G.  
Senior Reviewer

Attachments: Mitigation Plan, S&ME Figure 3

cc: Mr. Craig Parker (Gresham, Smith & Partners)



## Farmer, Maryellen J LRN

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**From:** Rob Todd [Rob.Todd@state.tn.us]  
**Sent:** Friday, July 15, 2005 4:36 PM  
**To:** Farmer, Maryellen J LRN  
**Subject:** Re: In Response to your comments on Public Notice 05-26

Maryellen:

Since the mitigation standards in the Stream Mitigation Guidelines for the State of Tennessee were published after the ARAP had been issued by TDEC, I am sympathetic to their situation. I will no longer push my objection, especially since the City of Knoxville has expressed an interest in locating a greenway path in this area, which will also serve the public's interest. I do appreciate KUB increasing the riparian buffer along the northeast side of the mitigation stream to a width of 75 feet as stated in their letter to you dated July 12, 2005.

Robert M. Todd  
Tennessee Wildlife Resources Agency  
Environmental Services Division  
Ellington Agricultural Center  
P.O. Box 40747  
Nashville, TN 37204  
Phone: 615-781-6572  
Fax: 615-781-6667  
E-mail address: Rob.Todd@state.tn.us

>>> "Farmer, Maryellen J LRN" <Maryellen.J.Farmer@lrn02.usace.army.mil>  
7/13/2005 6:55:49 AM >>>  
Good morning Rob,

I'm attaching KUB's responses to your comments. I emailed them after their initial response and requested further cooperation from them. I received their second response via email this morning. Please review and let me know if you can be satisfied with what they are offering. I feel it is adequate.  
Let me know what you think, I would like to get this one off my desk this week if possible.

Thanks,

Maryellen